IN THE CLAIMS:

- 1. (currently amended) A polishing machine for a peripheral edge of a semiconductor wafer, said machine comprising:
- a rotary mechanism for holding a semiconductor wafer while rotating it in a prescribed direction;
- a rotary body which rotates relative to the semiconductor wafer while maintaining a prescribed gap from a periphery of said semiconductor wafer, having a rotary axis which is set in the same direction as the rotary axis of said semiconductor wafer;
- a polishing solution channel for channeling the flow of polishing solution to said gap; and a polishing solution supply portion for supplying the polishing solution to said polishing solution channel;

wherein said polishing solution is drawn into said gap between the peripheral edge of said semiconductor wafer and said rotary body to conduct non-contact polishing of the peripheral edge of said semiconductor wafer.

- 2. (currently amended) A polishing machine for a peripheral edge of a semiconductor wafer, said machine comprising:
- a rotary mechanism for holding a semiconductor wafer while rotating it in a prescribed direction;
- a rotary body which rotates relative to the semiconductor wafer while maintaining a prescribed gap from a periphery of said semiconductor wafer, having a rotary axis which is set in the same direction as the rotary axis of said semiconductor wafer;
- a polishing solution tank for immersing said rotary mechanism and said rotary body in polishing solution; and
- a polishing solution circulation portion for circulating the polishing solution in and out of said polishing solution tank;

wherein said polishing solution is drawn into said gap between the peripheral edge of said semiconductor wafer and said rotary body to conduct non-contact polishing of the peripheral edge of said semiconductor wafer.

3. (original) The polishing machine for a peripheral edge of a semiconductor wafer

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according to claim 1, wherein said rotary mechanism holds a plurality of semiconductor wafers in a stacked state.

- 4. (original) The polishing machine for a peripheral edge of a semiconductor wafer according to claim 1, wherein dynamic pressure generating grooves are formed on the peripheral surface of said rotary body facing the periphery of said semiconductor wafer.
- 5. (original) The polishing machine for a peripheral edge of a semiconductor wafer according to claim 1, wherein a magnet is installed in said rotary body and a magnetic polishing solution is used as said polishing solution.
- 6. (original) The polishing machine for a peripheral edge of a semiconductor wafer according to claim 1, wherein at least the peripheral surface of said rotary body facing the periphery of said semiconductor wafer is formed of an elastic material with a hardness in the range of 7 - 40 Hs.
- 7. (previously presented) The polishing machine for a peripheral edge of a semiconductor wafer according to claim 2, wherein said rotary mechanism holds a plurality of semiconductor wafers in a stacked state.
- 8. (previously presented) The polishing machine for a peripheral edge of a semiconductor wafer according to claim 2, wherein dynamic pressure generating grooves are formed on the peripheral surface of said rotary body facing the periphery of said semiconductor wafer.
- 9. (previously presented) The polishing machine for a peripheral edge of a semiconductor wafer according to claim 2, wherein a magnet is installed in said rotary body and a magnetic polishing solution is used as said polishing solution.
- 10. (previously presented) The polishing machine for a peripheral edge of a semiconductor wafer according to claim 2, wherein at least the peripheral surface of said rotary body facing the periphery of said semiconductor wafer is formed of an elastic material with a hardness in the range of 7 - 40 Hs.